USDA, SCS
Section II-E
Technical Guide
Area 9, Texas

ROCKY HILL
RANGE SITE DESCRIPTION
PE 39-48

R080BY156 ?

Land Resource Area RP

Location Comanche, Eastland, Erath, Palo Pinto, Parker

Date 10/16/79

Approved: RB

1. PHYSIOGRAPHIC FEATURES: This site occurs on strongly sloping to to steep, stony hillsides. Slopes range from 8 to 40 percent. Limestone and sandstone fragments, 6 to 40 inches across, cover 3 to 15 percent of the soil surface. Elevations range from 800 to 1200 feet. The site usually has a southern exposure.

2. SOILS:

   a. Soils of this site are shallow, well drained, calcareous and developed over shale. The shale restricts grass root penetration which results in sparse plant cover, rapid runoff and droughty conditions, especially after the top soil has eroded.

   b. Major soil associated with the site is:

      Owens stony clay, 8 to 40 percent slopes

   c. Specific site location:

3. CLIMATE:

   See field office climate description.

4. CLIMAX VEGETATION:

   a. The climax plant community is mid and short grasses with an open savannah of scattered woody plants.

Relative Percentage of Total Plant Community
(air-dry weight)

Grasses	35%	Woody Plants	10%	Forbs	5%
sideoats grama	25	live oak		western ragweed	
cane and silver bluestem	15	hackberry		sagewort	
buffalograss	10	elm		heath aster	
white tridens	5	ephedra		bundleflowers	
vine-mesquite	5	agarito		mallow	
curly-mesquite	5	catclaw		greenthread	
Texas wintergrass	5	elbowbush		trailing ratany	
Arizona cottontop	5	sumac		buckwheats	
tall dropseed	5	yucca		daleas	
hairy grama, rough tridens, perennial threeawns, Texas cupgrass	5	bumelia		gray goldaster	
little bluestem	T	lotebush			

b. As the plant community begins to degenerate because of prolonged heavy livestock grazing; sideoats grama, vine-mesquite and cane bluestem reduce. Buffalograss and curly mesquite spread at first. Following continued heavy grazing these plants loose vigor, become even lower producers, but rarely are grazed out. Low producing perennials such as rough tridens, hairy grama and Texas grama increase. Eventually with loss of cover, the slopes begin to severely erode. Mesquite, lotebush, whitebrush, juniper, prickly pear, tasajillo and annuals increase and invade to dominate the site in lower stages of regression. Bare ground down to shale becomes significant.

c. Approximate total annual production in excellent condition ranges from 900 to 1300 pounds of air-dry vegetation per acre, depending on rainfall and growing conditions. During a series of dry years, production may drop below 400 pounds per acre.

5. WILDLIFE ADAPTED TO THE SITE: In excellent condition deer, turkey, quail and dove may frequent this site. In poorer condition, this site has secondary value for wildlife due to a lack of food and cover plants.

6. ESTHETIC AND RELATED VALUES: A variety of grasses, colorful flowers and woody plants add beauty to these steep hillsides.

7. HYDROLOGIC CHARACTERISTICS: Because of rough, steep topography, runoff is very rapid. The poor soil structure, very slow permeability, shallow soil depth, southern exposures with sparse plant cover causes the site to yield runoff with high sediment content. This shaly, crusty sediment is often deposited as a thin overwash on lower lying, more productive range sites, inhibiting plant growth.

8. GUIDE TO INITIAL STOCKING RATE:

a.

Condition class	Percent climax vegetation	Acres/AU/yearlong
Excellent	76 - 100	18 - 24
Good	51 - 75	22 - 28
Fair	26 - 50	26 - 36
Poor	0 - 25	34 - 48

b. Seeded Areas: Normally, this site is not reseeded due to existing seed source, stoniness and steepness of topography.

RELATIVE FORAGE QUALITY OF SPECIES 1/

a. For Cattle:

Primary 2/	Secondary 3/	Low value 4/
sideoats grama	cane bluestem	hairy grama
buffalograss	silver bluestem	rough tridens
vine-mesquite	white tridens	threeawns
Texas cupgrass	curly mesquite	ragweed
heath aster	Texas wintergrass	bundleflowers
	Arizona cottontop	woody plants
	tall dropseed	
	little bluestem	
	trailing ratany	

b. For Deer and Goats:

live oak	agarito	catclaw
hackberry	elm	yucca
ephedra	flameleaf sumac	lotebush
elbowbush	sagewort	ragweed
bumelia	bundleflowers	mallow
skunkbush sumac	sideoats grama	sacahuista

c. For Quail and Dove: 5/

Primary 2/	Secondary 3/	Low Value 4/
ragweed	mallow	skunkbush sumac
croton	dropseeds	broomweed
annuals	hackberry	fuzzy seeded grasses
panicum seed	sideoats grama	threeawns
sunflowers		
other mast and fruit		
low brush		

d. For Turkey: 5/

hackberry	dropseeds	other grasses
skunkbush sumac	large seeded grasses and forbs	coneflower
oak mast		asters
bundleflower		broomweed
ragweed		
sideoats grama		
panicum		
lotebush seed		

1/ This plant rating system gives guidance on animal preference for plant species as well as indicating competition between kinds of animals for various plants. Grazing preference does not necessarily reflect a plant's ecological place in the climax plant community. Grazing preferences change depending upon the animal; upon plant palatability and nutritive value, stage of growth, season of use relative abundance, availability and plant associations.

2/ These species generally decrease under prolonged heavy grazing use.

3/ These plants usually increase initially, then decrease under prolonged heavy grazing use.

4/ These plants continue to increase with prolonged heavy grazing use.

5/